GLOSSARY

A

Acre-Foot - The volume of water 1 foot deep over 1 acre of area (Viessman and Lewis 1996).

Adaptive management - A process referring to the practice of implementing a management strategy, monitoring the results, and then adapting the strategy as needed before implementing again.

Affected Environment - The biological, social, economic, and physical aspects of the environment that will or may be changed by proposed actions.

Alternative - A combination of management prescriptions applied in specific amount and locations to achieve a desired management emphasis as expressed in goals and objectives. One of several policies, plans, or projects proposed for decision making. An alternative need not substitute for another in all respects.

Amphipods - Small shrimp-like crustaceans living on or near a lake or stream bottom.

Anadromous fish - Those species of fish that mature in the sea and migrate into streams to spawn (e.g., salmon and steelhead trout).

Anatoxin-a- A toxic substance created under conditions where populations of the blue-green algae, *Anabaena flos-aquae*, proliferate. Anatoxin-a is a powerful neurotoxin that affects the nervous system that can lead to convulsions and death by suffocation (Carmichael 1994).

Anoxic – Water that is greatly deficient or without oxygen.

Aquatic Conservation Strategy (ACS) – Standards in the Northwest Forest Plan requiring that actions be developed to restore and maintain the ecological health of watersheds and aquatic ecosystems on public lands (NWFP 1994). The ACS strives to maintain and restore ecosystem health at watershed and landscape scales to protect habitat for fish and other riparian-dependent species and resources and restore currently degraded habitats.

Aquifer – An area beneath the earth's surface that contains ground water.

B

Bankfull Stream Flow - The stream flow that fills the channel to the top of its banks and at a point where the water begins to overflow onto a floodplain (Rosgen 1996).

Bedded - The distinct layering of sediment that accumulates over time in the lake basin and can usually be detected visually.

Beneficial Uses of Water – The uses of water listed in Oregon Administrated Rules by specific water body. The beneficial uses of Diamond Lake that are currently negatively impacted by water quality problems include: fish and aquatic life, water contact recreation, aesthetics, and fishing.

Benthic Organisms - Benthic organisms, also called benthos, are invertebrates such as worms, leeches, and snails that live in or on the sediments at the bottom of a lake (Mandaville 1997).

Best Management Practice (BMP) - The set of practices derived from "General Water Quality Best Management Practices", USDA 1988. When BMPs are applied during implementation of a project, they help ensure that water-related beneficial uses are protected and that State water quality standards are met. BMPs are based on site-specific evaluation and represent the most effective and practicable means of accomplishing the water quality goals of the specific area involved in the project.

Bioassay - A common laboratory test used to determine toxic levels of substances for a given species (Royce 1984).

Biological Diversity - (1) The distribution and abundance of plant and animal communities. (2) The variety of life forms and processes, including a complexity of species, communities, gene pools, and ecological functions.

C

Chlorophyll a - Chlorophyll is the green pigment in plants. Chlorophyll a is the "master pigment" in blue-green algae and higher plants that is responsible for photosynthesis. It is often used as a surrogate measure for the amount of phytoplankton (microscopic floating plants-algae, diatoms, etc) in a water sample (Mandaville 1997).

Critical Habitat – Critical habitat for the spotted owl is established as mapped land areas designated by the US Fish and Wildlife Service to provide protection of spotted owl habitat under the Endangered Species Act. Any modification of habitat in Critical Habitat Units (CHUs) that may affect either nesting, roosting, foraging or dispersal habitat must be addressed through consultation. Late Successional Reserves (LSRS) are land allocations under the Northwest Forest Plan that are also designed to provide habitat for spotted owls at the large scale of the species' range.

Cultural Resource - The physical remains of human activity (artifacts, ruins, burial mounds, petroglyphs, etc.) and conceptual content or context (as a setting for legendary, historic, or prehistoric events, as a sacred area of native peoples, etc.) of an area of prehistoric or historic occupation.

Cumulative Effect - The effects that are caused by other projects and activities in the same area as the project being considered. Cumulative effects are analyzed by considering the proposed activities in the context of past, present, and reasonable foreseeable actions.

Cyanobacteria - Blue green algae.

D

Desired Condition - A portrayal of the land or resource conditions that are expected to result if goals and objectives are fully achieved.

Diamond Lake Economic Area – An area that includes the Counties of Douglas, Jackson and Klamath used for the purpose of the economic analysis for this EIS.

Dipterans - An insect group that include common flies, midges, and mosquitoes

Disturbance - Events that alter the structure, composition, or function of terrestrial or aquatic habitats. Natural disturbances include, among others, drought, floods, wind, fires, wildlife grazing, and insects and diseases. Human-caused disturbances include, among others, actions such as timber harvest, livestock grazing, roads, and the introduction of exotic species.

Direct effects - The immediate environmental changes that occur as a result of implementing project activities.

E

Ecosystem - A complete, interacting system of living organisms and the land and water that make up their environment.

Ecologically sustainable fishery - The concept that fish stocking practices would be based on ecological indices such as phytoplankton, zooplankton, benthic invertebrate populations, and applicable nutrient loading factors. Eilers (2003) created an ecologically based index for guiding salmonid-stocking decisions in Diamond Lake.

Effects - Environmental changes resulting from a proposed action. Included are direct effects, which are caused by the action and occur at the same time and place, and indirect effects, which are caused by the action and are later in time or further removed in distance, and cumulative effects, which includes the effects of the past, present, proposed, and reasonably foreseeable actions.

Endangered Species - Any species, plant, or animal that is in danger of extinction throughout all or a significant portion of its range. Endangered species are identified by the Secretary of the Interior in accordance with the 1973 Endangered Species Act.

Environment - The combination of external physical, biological, social, and cultural conditions affecting the growth and development of organisms and the nature of an individual or community.

Environmental Impact Statement (EIS) - A document prepared by a Federal agency disclosing the environmental effects of its proposals for major actions used as a tool for decision-making. It is a formal document that must follow the requirements of NEPA, the council on Environmental Quality (CEQ) guidelines, and directives of the agency responsible for the project proposal.

Epilimnion – The surface layer of lake water that often becomes warm during the summer months.

Eutrophic – A lake's nutrient regime characterized by high nutrient inputs and high productivity.

Eutrophication – An increase in the growth of aquatic plants.

Evaporation – The process by which liquid water is converted into water vapor.

Evapotranspiration – The combination of evaporation from free water surfaces and transpiration of water from plant surfaces to the atmosphere.

F

Fecundity - A measure of reproductive potential.

Fen – A wetland ecosystem in which the main source of water is usually nutrient rich groundwater

Flocculent – A fine, fluffy mass formed by the aggregation of small insoluble particles that settle to the lake bottom over time.

Floodplain - The portion of river valley or level lowland next to streams, which is covered with water when the river or stream overflows its banks at flood stage.

Fluvial Erosion - The wearing away of the land surface or stream banks by running water. Fluvial erosion can be reduced by slowing water velocity with channel roughness such as wood and boulders or by decreasing flow volume.

Forest Plan (Umpqua) - A document that guides natural resource management and establishes standards and guidelines for a national forest; required by the National Forest Management Act.

Forest-Wide Standards - An indication of policy or conduct dealing with the basic management of the Forest. Forest-wide management standards apply to all areas of the Forest regardless of the other management prescriptions applied.

Fragmentation (habitat) - The break-up of a large land area (such as a forest) into smaller patches isolated by areas converted to a different land type. The opposite of connectivity.

H

Habitat - A place that provides seasonal or year-round food, water, shelter, and other environmental conditions for an organism, community, or population of plants or animals.

Habitat Type - A group of plant communities having similar habitat relationships.

Headwaters - Beginning of a watershed; un-branched tributaries of a stream.

Historic or Natural Range of Variability - The natural fluctuation of ecological and physical processes and functions that would have occurred during a specified period of time. Refers to the range of conditions that are likely to have occurred prior to settlement of the project area by Euro-Americans (approximately the mid 1800s), which would have varied within certain limits over time.

Hydraulic Conductivity - A measure of the ability of fluid to move through a porous media. It is a function of the fluid properties and physical properties of the media such as the size and shape of pores, and effectiveness of the interconnection between the pores.

Hydraulic Gradient - The difference in water level between two wells divided by the distance between them. The direction of groundwater flow is from the well with the higher level to that with the lower level.

Hydroacoustic sampling – A type of lake sampling that utilizes high frequency sound waves to identify bottom features, fish, aquatic vegetation, and zooplankton within waterbodies.

Hypolimnion - The water in the deepest portion of a lake that typically remains relatively cool throughout the summer.

I

Interdisciplinary Team (IDT) - A group of professionals with different training assembled to develop an EIS. The team is assembled out of recognition that no one scientific discipline is sufficiently broad to adequately solve the problem. Through interaction, participants bring different points of view to bear on the problem.

Interspecific Competition - The natural process of similar organisms competing with one another for available food and habitat.

Indicator Species - A species that is presumed to be sensitive to habitat changes; population changes of indicator species are believed to best indicate the effects of land management activities.

Indirect effects - Environmental effects that are caused by the action at a later time or occur in a different place (i.e. downstream from the project area), but are reasonably certain to occur.

Instream Water Right - As defined in Oregon Revised Statutes 537.332, a water right is held in trust by the Water Resources Department for the benefit of the people of the state of Oregon to maintain water instream for public use. An instream water right does not require a diversion or any other means of physical control over the water (Oregon Administrative Rules 690-077-0010, Instream Water Rights - Definitions).

Intermittent Stream - A stream that flows only at certain times of the year when it receives

water from other streams or from surface sources such as melting snow.

Invertebrates – Animals without a spine or backbone.

Irretrievable - Applies primarily to the use of nonrenewable resources. For example, some or all of the timber production from an area is irretrievably lost during the time an area is used as a road. If the road is decommissioned, timber production can be resumed. The production lost is irretrievable, but the action is not irreversible.

Irreversible - Applies primarily to the use of nonrenewable resources, such as minerals or cultural resources, or to those factors such as soil productivity that are renewable only over long time periods. Irreversible also includes loss of future options.

Issue – As defined by the National Environmental Policy Act, an issue is an unresolved conflict over the use of available resources. Issues are points of debate, dispute, or disagreement over the effects of a proposed action.

l

Landscape - All the natural features such as hills, forest, and water, which distinguish one part of the earth's surface from another; usually that portion of land which the eye can comprehend in a single view, including all its natural characteristics.

Large Woody Debris - Pieces of wood that are of a large enough size to affect stream channel morphology.

LC50 - Median lethal concentration is the concentration of a toxin in water that kills 50% of the test animals in the water within a specified time (usually 24, 48, or 96 hours). It is usually expressed as ppm (Bradbury 1986).

LD50 – Median lethal dosage is the dosage of a toxin that when fed or injected kills 50% of the test animals. It is usually expressed as mg of toxin per kg of the test animal's body weight (Bradbury 1986).

Littoral Zone - The relatively shallow near-shore area of a lake.

m

Macrophytes - Aquatic plants.

Management Area - An area with similar management objectives and a common management prescription identified in a Forest Plan.

Management Direction - A statement of goals and objectives, management prescriptions, and associated standards and guidelines for attaining them.

Management Indicator Species - Species identified in the Forest Plan that are used to monitor the effects of planned management activities on viable populations of wildlife and

fish, including those that are socially or economically important.

Maximum Contaminate Level (MCL) - The highest level of a chemical allowed in drinking water. It is an enforceable level under the Safe Drinking Water Act.

Maximum Modification – A Visual Quality Objective where land management activities can dominate the natural landscape to greater extent than in the modification objective, except as viewed from background when visual characteristics must be those of natural occurrences within the surrounding area.

Mesotropic – A lake's nutrient regime characterized by a "moderate level" of nutrients and biological productivity. A mesotrophic lake is capable of producing and supporting moderate populations of living organisms.

Metalimnion – The layer of lake water in the middle depths of a lake representing the water layer with the most rapid change in temperature with depth (also called the "thermocline").

Microcystins - Powerful liver toxins that disrupt the structure of liver cells, causing cell destruction, liver hemorrhage, liver necrosis, and death (Carmichael 1994). These toxins were first isolated from the blue-green algae *Microcystis aeruginosa*, but are also produced by other species of algae, including *Anabaena*.

Mitigation - Avoiding or minimizing impacts by limiting the degree or magnitude of the action and its implementation; rectifying the impact by repairing, rehabilitating, or restoring the affected environment; reducing or eliminating the impact by preservation and maintenance operations during the life of the action.

Modification – A Visual Quality Objective where land management activities may visually dominate the natural surrounding landscape but must borrow from naturally established form, line, color, and texture.

n

National Environmental Policy Act (NEPA) – Federal Legislation related to actions on Federal land that encourages informed decision making. NEPA requires Federal agencies to: (a) use a systematic interdisciplinary approach in planning and decision making; (b) consider the environmental impact of proposed actions; (c) identify adverse environmental effects which cannot be avoided should the proposal be implemented; (d) consider alternatives to the proposed action; (e) consider the relationship between local short-term uses of the human environment and the maintenance and enhancement of long-term productivity; and (f) identify any irreversible and irretrievable commitments of resources which would be involved in the proposed action should it be implemented. Establishes a Council on Environmental Quality (CEQ).

Naturalized Species - A non-native plant that is so well established and that has inundated so many different types of ecosystems that it is all but adapted to the new continent it was brought to.

Nitrogen - Nitrogen is an important component of all proteins and is required for most biochemical reactions. All living cells require nitrogen in relatively high amounts compared

to other nutrients.

Nitrogen Limited Streams - Streams such as the North Umpqua River are referred to as nitrogen limited because algae and other plants rapidly use up inorganic nitrogen (nitrogen that is "in solution" or dissolved in the water) as soon as it becomes available in the water column. High inputs of inorganic nitrogen into these types of streams can result in algae blooms.

Noxfish® - The brand name of the liquid rotenone formulation that is proposed for use in Short and Silent Creeks that flow into Diamond Lake. This formulation of rotenone contains the plant materials that are the basis of the fish toxicant and other added ingredients including and volatile (xylene, trichlorethylene, toluene, and trimethylbenzene) and semi-volatile (naphthalene, 1-methyl naphthalene, and 2-methyl naphthalene) organic compounds. These volatile and semi-volatile organic compounds dissipate in treated water before rotenone and rotenolone (Finlayson et al. 2000).

O

Oligotrophic - A lake's nutrient regime characterized by low nutrient inputs, and low productivity.

Oregon Administrative Rules on Diamond Lake - The Oregon Administrative Rules contain OARs filed through July 15, 2003

DIVISION 500--FISH MANAGEMENT PLANS
635-500-0703
Diamond Lake shall be managed for hatchery production under the basic yield alternative of Oregon's Trout Plan.
Stat. Auth.: ORS 496, ORS 506 & ORS 508
Stats. Implemented: ORS 496, ORS 506 & ORS 508
Hist.: FWC 117-1990, f. & cert ef. 10-15-90
635-500-0115

Management Alternatives
In addition to the three broad management options in OAR 635-007-0525 (Wild Fish Policy) the following six management alternatives, their criteria and guidelines, will be used in the management of trout:
(1) Wild Fish -- Management under the wild fish alternative is exclusively for wild fish Option (1)(a) of OAR 635-007-0525 (Wild Fish Policy). These fish may have significant genetic value and some populations will be recognized specifically for their uniqueness. Guidelines which apply are:
(a) No hatchery-reared trout will be released in these waters;
(b) Although ODFW does not have regulatory authority over most activities that affect aquatic habitat, it will actively pursue and promote habitat protection and enhancement. Habitat must be protected or enhanced, using a subbasin-wide approach, to maximize the productivity of the stock, conserve stock fitness and life history characteristics, and to maintain healthy trout populations with multiple-age classes. Specific coordination activities will be coordinated with land management agencies;

(c) Consumptive and nonconsumptive fisheries are encouraged. However, special regulations may be necessary to protect stock fitness and life history characteristics and to maintain healthy trout populations with multiple age classes;
(d) No new introductions of hatchery or wild species will be made unless proposed in a management plan, evaluated to determine impact on wild trout stocks, and approved by the Commission;
(e) The productive capacity of waters in this alternative will be maintained or enhanced so no net loss of natural fish production occurs;
(f) Unique native populations may require additional recognition for protection.
(2) Featured Species and Waters -- Management under this alternative emphasizes species or stocks that are uncommon or unique and waters that have historical benefit or potential for unique natural beauty, water quality, aesthetics or recreational capabilities. Species, stocks, or waters under this alternative can be managed as Options (1)(a), (b) or (c) of OAR 635-007-0525 (Wild Fish Policy). Guidelines which apply are:
(a) Habitat must be protected or enhanced to maintain and preserve the uniqueness of these stocks, species, or waters. Protection or enhancement activities will include a subbasin-wide approach via land management agencies to preserve unique natural beauty, water quality and volume, and aesthetic or recreational capabilities;
(b) The productive capacity of waters in this alternative will be maintained or enhanced so that no net loss of natural fish production occurs;
(c) Featured species or stocks will be managed to maintain their genetic diversity, stock fitness, and resulting life history characteristics;
(d) Special regulations may be necessary to protect the uniqueness of the featured stock, species, or waters. Consumptive and non-consumptive fisheries are encouraged;
(e) No new introduction of hatchery or wild species will be made unless proposed in a management plan, evaluated to determine effects on wild trout stocks, and approved by the Commission.
(3) Trophy Fish -- Certain waters are capable of producing large "bragging-size" trout. This alternative does not include publicizing all trophy trout waters in the state. Many anglers fish secret and favorite waters that produce some trophy trout. Waters that have limited access or capability to produce large fish without special habitat protection, regulation, or stocking procedures will be placed in other alternatives to preserve angler diversity. Management Options may be (1)(a), (b) or (c) of OAR 635-007-0525 (Wild Fish Policy). Guidelines which apply are:
(a) Habitat must be protected, restored, or enhanced to produce large trout;
(b) Species or stocks known to produce large trout will be managed to maintain genetic diversity, stock fitness, and resulting life history characteristics;
(c) Nonconsumptive fisheries are encouraged. Special regulations (catch limits, size restrictions, catch and release, and gear restrictions) may be necessary to protect these large fish and insure the population health and size diversity;
(d) Release of fingerling trout will be reduced below carrying capacity in some waters to produce large, naturally reared trout;
(e) The productive capacity of waters in this alternative will be maintained or enhanced so that no net loss of natural fish production occurs;
(f) No new introduction of hatchery or wild species will be made unless proposed in a management plan, evaluated to determine impact on wild trout stocks, and approved by the Commission.
(4) Basic Yield -- These waters are managed under Options (1)(a), (b), or (c) of OAR 635-007-0525 (Wild Fish Policy) to use their natural productivity and grow trout to a harvestable size with or without the addition of fingerling or yearling hatchery trout. Although trophy trout

and unique fish species may be available, the major fisheries are of a general, consumptive nature without special regulations. Most of the trout available to the angler are from either naturally produced or from releases of hatchery fingerlings. Other species may be present and have fishery values equal to or greater than trout. Guidelines which apply are:
(a) Habitat must be protected and enhanced to optimize natural production potential of wild stocks and natural rearing capability from fingerling stocking;
(b) The productive capacity of waters in this alternative will be maintained or enhanced so that no net loss of natural fish production occurs. Problem waters can be transferred into a higher priority alternative;
(c) General regulations will be used to produce consumptive fisheries unless special regulations are needed to enhance trophy-sized fish or unique species or stocks without seriously restricting the major fisheries;
(d) Natural reproduction and fingerling stocking will provide he major fish production in this alternative. Stocking of yearling hatchery rainbow trout may also be used in some waters;
(e) Other species may have equal or priority status for some waters listed in this alternative;
(f) No new introduction of hatchery or wild species will be made unless proposed in a management plan, evaluated to determine effects on wild trout stocks, and approved by the Commission.
(5) Intensive Use -- These waters are managed under Options (1)(a), (b) or (c) of OAR 635-007-0525 (Wild Fish Policy). Waters managed for this alternative are apt to be near large population centers or attract intensive angler use because of easy accessibility or location of other water-oriented recreational facilities. Many of these waters can be used heavily by anglers for short periods (April, May, and June) and afterwards be used for sailboating, water skiing, swimming, and camping. Other waters can support fisheries year-round. Some of these water are stocked with yearling rainbow trout on a regular basis. Guidelines which apply are:
(a) Even with a consumptive fishery to large numbers of anglers, natural production supplemented with fingerling hatchery trout is the least expensive management program;
(b) Habitat protection and enhancement projects are necessary because of the intensive use and large number of recreation days provided. Year round protection is necessary in waters with natural rearing or natural production. Waters with marginal water quality and quality are still critically important to maintain these fisheries even for 2- or 3-month periods;
(c) General regulations will be used to produce consumptive fisheries but special regulations may be needed to protect wild trout under Option (1)(a) or (b) of OAR 635-007-0525;
(d) ODFW will continue to coordinate with other state and federal agencies to prevent conflicts with other water-related recreational activities.
(6) Private Waters and Reservations -- ODFW generally does not participate in the direct management of these waters except regarding the enforcement of applicable state statutes, policies, and administrative rules pertaining to stocking permits, fish diseases, prohibited species, and other factors that may affect the welfare of the state's natural resources.
Stat. Auth.: ORS 496 & ORS 506
Stats. Implemented: ORS 496 & ORS 506
Hist.: FWC 93-1987, f. & ef. 10-30-87

P

Partial Retention – A Visual Quality Objective where land management activities may be evident to the viewer but must remain visually subordinate to the surrounding landscape.

Periphyton – The conglomeration of algae, protozoa, fungi and bacteria in streams and lakes that is attached to macrophytes, rock or other surfaces.

pH – pH is a measure of acidity and alkalinity of a solution. A pH of 7.0 is a neutral solution. The pH of natural waters ranges between the extremes of 2 to 12 with 2 being the most acidic and 12 being the most alkaline or basic (Wetzel 1983) .

Phosphorus - Phosporus is one of the essential elements required by all living organisms for metabolic processes. Phosphorus is considered to be one of the nutrients that commonly limits algal growth in lakes.

Phytoplankton - Floating plants usually microscopic, comprised primarily of algae, that live suspended in the water.

Piscicide – A pesticide that kills fish.

Piscivorous Fish – Fish that eat other fish.

Planktivorous Fish - Fish that prey upon plankton.

Preliminary Remedial Goal - The level of a chemical in drinking water that is not expected to cause any adverse effects for a lifetime of exposure. Lifetime exposure is based on 30 years of exposure for a child and adult drinking 1 and 2 liters, respectively.

Preservation - A Visual Quality Objective that allows only ecological changes. Management activities, except for very low visual impact recreation facilities, are prohibited. This objective applies to specially classified areas, including wilderness.

Primary Production – The growth and production of biomass by plants.

Pro-Noxfish® – The brand name of the powdered rotenone formulation that is proposed for use in Diamond Lake. This formulation contains only plant materials and no other added ingredients.

Proposed Action - A proposal by a federal agency to authorize, recommend, or implement an action.

R

Record of Decision - A document separate from but associated with an Environmental Impact Statement that states the decision, identifies all alternatives, specifying which were environmentally preferable, and states whether all practicable means to avoid environmental harm from the alternative have been adopted, and if not, why not (40 CFR 1505.2).

Resilient, Resilience, Resiliency - (1) The ability of a system to respond to disturbances. Resiliency is one of the properties that enable the system to persist in many different states or successional stages. (2) In human communities, refers to the ability of a community to respond to externally induced changes such as larger economic or social forces.

Restoration - Holistic actions taken to modify an ecosystem to achieve desired, healthy, and functioning conditions and processes. Generally refers to the process of enabling the system

to resume acting or continue to act following disturbance as if the disturbances were absent. Restoration activities can be either active (such as control of noxious species) or more passive (more restrictive, hands-off management direction that is primarily conservation oriented).

Retention – A Visual Quality Objective where land management activities are not visually evident. Management activities are permitted, but the results of those activities on the natural landscape must not be evident to the average viewer.

Riparian Area - Area with distinctive soil and vegetation between a stream or other body of water and the adjacent upland; includes wetlands and those portions of floodplains and valley bottoms that support riparian vegetation.

Rotenone – A naturally occurring fish toxicant derived from the roots of tropical plants that grow in Australia, southern Asia, and South America. Rotenone has been used for centuries to capture fish in areas where the plants are naturally found.

Rotenolone - The metabolite (by product) of rotenone (Finlayson et al. 2000).

Runoff - The total stream discharge of water, including both surface and subsurface flow, usually expressed in acre-feet of water yield.

S

Safe Drinking Water Act – Legislation passed by the Federal Government that gives the Environmental Protection Agency the authority to set drinking water standards.

Salmonids - The family of fish that includes salmon and trout. Some species are ocean-going (anadromous) while others are not (resident).

Saturated Zone - The depth, below which all of the pores in the soil or geologic matrix are filled with water, thus allowing the water to flow.

Scoping – As defined by the National Environmental Policy Act, scoping is an early and important process for determining the scope of issues to be addressed and for identifying the significant issues related to the proposed action. Identifying the significant environmental issues deserving of study and de-emphasizing insignificant issues, narrowing the scope of the environmental impact statement accordingly (CEQ regulations, 40 CFR 1501.7).

Sediment - Solid materials, both mineral and organic, in suspension or transported by water, gravity, ice, or air; may be moved and deposited away from their original position and eventually will settle out.

Seines - A type of fishing net that usually hang vertically in the water.

Sensitive Species - Those species which are recognized by the Regional Forester to need special management in order to prevent the need for their placement on Federal or State lists.

Seral - Refers to the stages that plant communities go through during succession.

Developmental stages have characteristic structure and plant species composition. Early seral refers to plants that are present soon after a disturbance or at the beginning of a new successional process (such as seedling or sapling growth stages in a forest); mid seral in a forest would refer to pole or medium sawtimber growth stages; late or old seral refers to plants present during a later stage of plant community succession (such as mature and old forest stages).

Snag - A standing dead tree, usually larger than five feet tall and six inches in diameter at breast height. Snags are important as habitat for a variety of wildlife species and their prey.

Special Use Permits – Permits issued by the Forest Service to the private sector when a business is established on, or revenues are generated from, public Forest Service managed lands. A percentage of the revenue generated from the business is paid to the federal government.

Streams (Class I and II) – Are perennial streams that have sea-run (anadromous) and resident fish, respectively.

Streams (Class III) - Are perennial streams that are not occupied by fish.

Streams (Class IV) – Intermittently flowing streams that dry up in the summer.

Stream channel - The deepest part of a stream or riverbed through which the main current of water flows.

Subwatershed - A drainage area, equivalent to a 6th-field Hydrologic Unit Code (HUC). Hierarchically, subwatersheds (6th-field HUC) are contained within watershed (5th-field HUC), which in turn contained within a subbasin (4th-field HUC). The size of subwatersheds has recently been redefined as 10,000 to 40,000 acres.

Surface Erosion - The detachment and transport of individual soil particles by wind, water, or gravity.

T

Terrestrial - Pertaining to the land.

Threatened and Endangered Species (T&E) - A species or subspecies of animal or plant whose prospects of survival and reproduction are in immediate jeopardy or likely to become so within the foreseeable future. Threatened species are identified by the Secretary of Interior in accordance with the 1973 Endangered Species Act.

Total Maximum Daily Load – A calculation of the maximum amount of a pollutant that a waterbody can receive and still meet water quality standards. Water quality standards are set by the State. They identify the beneficial uses for each water body, for example, drinking water supply, fishing or swimming. A TMDL is the sum of the allowable loads of a single pollutant from all contributing sources. The calculation must include a margin of safety to ensure that the water body can be used for the purposes the State has designated.

Trophic Levels – The various parts of a food chain. For example, fish (predators) represent a

high trophic level on the Diamond Lake aquatic food chain and zooplankton (prey) represent a lower level on the food chain.

Tui chub – A species of fish in the minnow family that are not native to Diamond Lake.

U

Upland - The portion of the landscape above the valley floor or stream.

V

Viability - In general, viability means the ability of a population of a plant or animal species to persist for some specified time into the future. For planning purposes, a *viable population* is one that has the estimated numbers and distribution of reproductive individuals to ensure that its continued existence will be well distributed in the planning area.

Visual Quality - The degree of apparent modification of the natural landscape.

Visual Quality Objectives (VQOs) - A desired level of management based on physical and sociological characteristics of an area. Refers to the degree of acceptable alteration of the characteristic landscape.

W

Watershed - (1) The region draining into a river, river system, or body of water. (2) Fifth-field watersheds can range in size from 40,000 to 250,000 acres and are made up of multiple 6th field watersheds. Sixth-field watersheds can range in size from 10,000 to 40,000 acres, with some as small as 3,000 acres.

Water Quality Limited - A body of water that does not meet established water quality standards and that is "listed" by Oregon Department of Environment Quality (DEQ) on its 303(d) list. Diamond Lake is listed as such for both algae and pH.

Z

Zooplankton - Very small animals that are suspended in the water column. Freshwater zooplankton are dominated by four major groups: protozoa, rotifers, and two subclasses of Crustacea, the cladocerans and copepods (Mandaville 1997). The larger zooplankton (cladocerans and copepods) are important sources of food for many species of fish.